

**IN THE UNITED STATES BANKRUPTCY COURT  
FOR THE DISTRICT OF DELAWARE**

In re:  
FTX TRADING LTD., *et al.*,<sup>1</sup>  
Debtors.

Chapter 11  
Case No. 22-11068 (JTD)  
(Jointly Administered)  
**Hearing Date: March 20, 2024, at 10:00 a.m.  
(ET)**  
**Re: D.I. Nos. 5202, 5620, 7090**

**MAPS VAULT LIMITED'S RESPONSE AND OPPOSITION TO  
MOTION OF DEBTORS TO ESTIMATE CLAIMS BASED ON DIGITAL ASSETS**

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<sup>1</sup> Due to the large number of debtor entities in these Chapter 11 Cases, a complete list of the Debtors a complete list may be obtained on the website of the Debtors' claims and noticing agent at <https://cases.ra.kroll.com/FTX>.

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Maps Vault Limited (“Maps Vault”), through its undersigned counsel, DLA Piper LLP (US), hereby submits this Response and Opposition (this “Opposition”) to the *Motion of Debtors to Estimate Claims Based on Digital Assets* [D.I. 5202] (the “Estimation Motion”)<sup>2</sup>. In support of this Opposition, Maps Vault respectfully states as follows:

### **PRELIMINARY STATEMENT**

1. Maps Vault timely filed proofs of claim, which collectively sought recovery of more than \$520 million for MAPS, OXY, and SRM tokens it had on deposit on the FTX exchange on the Petition Date. In the Estimation Motion and the related Howell Report and Lu Declaration, the Debtors now contend that the MAPS and OXY tokens should be valued at zero dollars and the SRM tokens at a fraction of their Petition Date value. No other FTX customers have had their claims devalued at such a high level. Indeed, out of the 1321 tokens at issue in the Estimation Motion, only 71 were discounted by more than 10%, and most of those tokens had little value at the outset, with only the MAPS, OXY, and SRM tokens standing out as subject to substantial diminution in value from proposed “asset liquidation discounts.”

2. The apparent rationale for such singular treatment is two-fold, the first merely by way of innuendo and second based on the misapplication of plainly inapposite principles to discount the valuation of the tokens. On the innuendo side, the Debtors repeatedly suggest, but do not seek to affirmatively demonstrate, that the MAPS, OXY and SRM tokens should be valued at zero or close to zero dollars because they are purportedly “Sam coins”—cryptocurrency allegedly tainted by association with Sam Bankman-Fried and FTX. Whether the MAPS, OXY, and SRM tokens were “Sam coins” is not before the Court, was not addressed in the Howell Report or Lu

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<sup>2</sup> Capitalized terms not otherwise used herein have the meanings set forth in the Estimation Motion.

Declaration, and should not be considered for any purpose in connection with the Estimation Motion.

3. On the valuation side, the value of the MAPS, OXY and SRM tokens on the Petition Date is the one issue that is squarely before the Court and—despite the Debtors’ results-oriented machinations—is susceptible to ready answers under well-established asset valuation principles. What would a willing buyer pay for a given quantity of the seller’s assets on a specified date? This is the simple inquiry at the heart of any asset valuation exercise. It can and should apply with equal simplicity here, notwithstanding the Debtors’ contrary agenda.

4. But the Debtors unnecessarily complicate matters by contending that the MAPS, OXY and SRM tokens can only be valued under a convoluted scenario that assumes that *all* such tokens—not just those held by Maps Vault, but those held by FTX itself and all other FTX customers—must be deemed unlocked and sold *en masse* on the Petition Date. Under this scenario—when combined with skewed, self-serving assumptions about applicable trading timeframes and volumes—the Debtors argue that this presumed mega-sale would crash the market for MAPS, OXY and SRM tokens, and thereby deprive the tokens of all or nearly all value. The Debtors’ experts also lack the basic qualifications in statistics and valuation principles necessary to render such an opinion.

5. The Debtors’ needlessly elaborate valuation analysis proves too much. Above and beyond the Debtors’ experts’ lack of credentials and relevant experience, the overly selective trading data, and improper (and internally inconsistent) trading measurement periods they utilize, and their inexplicable reliance on a model (the “KO Model”) that does not even purport to provide a valuation and yields illogical and insupportable results—all of which are readily rebutted—the MAPS and OXY tokens simply cannot be valued at zero dollars.

6. The Debtors’ lead expert, Prof. Howell, conceded as much, acknowledging at her deposition that the MAPS and OXY tokens have some positive value and that the Debtors could, even under the ill-advised *en masse* sale scenario she posits, liquidate up to \$100 million of the tokens before their price would go to zero. Prof. Howell also was unable to calculate when the price would go to zero because it depends “on market activity, beliefs, and expectations,” thereby opening up the possibility that the point of “market exhaustion” for the MAPS and OXY tokens could just as credibly be reached at \$291 million (as Maps Vault argues) as at zero dollars (as the Debtors argue).

7. Echoing Prof. Howell’s concession, Maps Vault’s expert, Fotis Konstantinidis, demonstrates conclusively that, by using a “blockage” or “dribble out” methodology supported by decades of asset liquidation practice, Maps Vault could liquidate the MAPS, OXY and SRM tokens gradually over time without causing a significant change in price, thereby resulting in “blockage” discounts as to the tokens held by Maps Vault that range from 36.8% up to 45.9%, not up to 100%, as the Debtors contend (Konstantinidis Report ¶ 49.) This yields an aggregate Petition Date price for these tokens of approximately \$291 million. (*Id.* ¶¶ 41–42, 49.)

8. Under the unusual circumstances of this estimation proceeding—where issues of fairness are just as important as issues of valuation accuracy—this Court should exercise its discretion to assign a value to the MAPS, OXY, and SRM tokens that reflects the value these tokens would have had if Maps Value—and Maps Vault alone—had been able to monetize these tokens (by immediate or deferred sale) on the Petition Date. Maps Vault, no less than the more than one million others whose claims are addressed in the Estimation Motion, was an FTX customer that became on the Petition Date a victim of the massive fraud committed by Sam Bankman-Fried. For this reason, Maps Vault has every right to participate in the substantial



recoveries anticipated in these chapter 11 cases on the basis of the fairly calculated Petition Date value of its claims. The Court should reject any contentions in the Estimation Motion, the Howell Report, and the Lu Declaration that do not yield such a fair result and adopt the more balanced and rational analysis proffered by Maps Vault's expert, Fotis Konstantinidis.

### **FACTUAL BACKGROUND**

9. On November 11 and November 14, 2022 (as applicable, the "Petition Date"), the Debtors filed voluntary petitions for relief under chapter 11 of the Bankruptcy Code.

#### **A. Claims Process and Chapter 11 Plan**

10. On May 19, 2023, the Court entered the *Order (I)(A) Establishing Deadlines for Filing Non-Customer and Government Proofs of Claim and Proofs of Interest and (B) Approving the Form and Manner of Notice Thereof and (II) Granting Related Relief* [D.I. 1519], setting the non-customer bar date to file proofs of claim against any of the Debtors as June 30, 2023, and the governmental bar date as September 29, 2023.

11. On June 28, 2023, the Court entered the *Order (I)(A) Establishing Deadlines for Filing Customer Proofs of Claim, (B) Approving Procedures for Submitting Proofs of Claim and (C) Approving the Form and Manner of Notice Thereof and (II) Granting Related Relief* [D.I. 1793] (the "Customer Bar Date Order"), setting the deadline for customers to file proofs of claim on account of Customer Claims as September 29, 2023.

12. As set forth in the *Notice of Deadlines Requiring Filing of Customer Proofs of Claim on or Before September 29, 2023 and Customer Proofs of Claim Affected by the Amendment of or Supplement to the Debtors' Schedules of Assets and Liabilities* [D.I. 1870] (the "Customer Bar Date Notice"), each customer proof of claim based on cryptocurrencies or digital assets was required to set forth, among other information, (i) the number of units or quantity of each

cryptocurrency or digital asset and (ii) the program (i.e. Earn, Lend or Stake), if any, applicable to each cryptocurrency or digital asset.

13. The proof of claim form permitted holders of Customer Claims to file claims denominated in Digital Asset quantities and without dollarized values. However, it did not preclude holders of Customer Claims from asserting, in a supplement or otherwise, liquidated claims with specific dollar valuations for any of the cryptocurrencies or digital assets. Thus, upon information and belief, many claims based on Digital Assets,<sup>3</sup> have been asserted in proofs of claim with dollarized values, which “constitute prima facie evidence of the validity *and amount* of the claim.” Fed. R. Bankr. P. 3001(f) (emphasis added).

14. As previously addressed in the Maps Vault Preliminary Objection, as of the Petition Date, as reflected in the Maps Vault Proofs of Claim, the following tokens in the following quantities were credited to Maps Vault’s FTX account:

- MAPS [919,803,630.62041176]
- MAPS\_LOCKED [3,001,863,000.37958824]
- SRM [25,930.09973614]
- SRM\_LOCKED [2,951,713.52285749]
- TRX [.000001]
- USD [0.01]

Accordingly, in the aggregate, not less than 3,921,666,631 MAPS tokens and 2,977,643.62259363 SRM Tokens were credited to Maps Vault’s FTX account as of the Petition Date.

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<sup>3</sup> This includes those claims relating to the proofs of claim filed by Maps Vault on June 29 and September 28, 2023 (Confirmation IDs: 3265-69-BGTHN-761175203, 3265-69-DOCRM-460337416, 3265-69-CDWPN-672893003, 3265-70-JLAYG-671353347) (the “Maps Vault Proofs of Claim,” and the underlying claims, the “Maps Vault Claims”) and the proofs of claim filed by Oxygen Vault on June 29 and September 28, 2023 (Confirmation IDs: 3265-70-CYMNS-491255818, 3265-69-DIEVK-216452732, 3265-69-BHERU-708814938, and 3265-69-FMNIJ-161916036)— (the “Oxygen Proofs of Claim,” and the underlying claims, the “Oxygen Vault Claims,” and together with the Maps Vault Claims, the “Maps Claims”).

15. On the Petition Date, the price of MAPS tokens was \$0.1072 per token, as sourced from CoinMarketCap ([coinmarketcap.com/currencies/maps](https://coinmarketcap.com/currencies/maps)), and the price of SRM tokens was \$0.4179 per token, as sourced from CoinMarketCap ([coinmarketcap.com/currencies/serum](https://coinmarketcap.com/currencies/serum)).

16. Thus, the value in USD of MAPS tokens and SRM tokens held by Maps Vault as of the Petition Date was \$420,402,662.84 and \$1,244,357.27, respectively, for a total of \$421,647,020.11.

17. As of the Petition Date, as reflected in the Oxygen Proofs of Claim, the following tokens in the following quantities were credited to Oxygen Vault's FTX account:

- OXY [974,492,842.61176861]
- OXY\_LOCKED [2,138,332,564.38823139]
- SRM [100,473.81295225]
- SRM\_LOCKED [7,222,309.39995117]
- USD [0.01]

Accordingly, in the aggregate, not less than 3,112,825,407 OXY tokens and 7,322,783.20118364 SRM Tokens were credited to Oxygen Vault's FTX account as of the Petition Date.

18. On the Petition Date, the price of OXY tokens was \$0.03232 per token, as sourced from CoinMarketCap ([coinmarketcap.com/currencies/oxygen](https://coinmarketcap.com/currencies/oxygen)), and the price of SRM tokens was \$0.4179 per token, as sourced from CoinMarketCap ([coinmarketcap.com/currencies/serum](https://coinmarketcap.com/currencies/serum)). The value in USD of OXY tokens and SRM tokens held by Oxygen Vault as of the Petition Date was \$100,606,517.15 and \$3,060,191.09, respectively, for a total of \$103,666,708.24.

19. By the Claim Assignment Agreement, dated November 2, 2023, Oxygen Vault assigned to Maps Vault all the Oxygen Proofs of Claim.

20. The Estimation Motion, invoking a number of bases for such value reductions (or “discounts”), estimates the value of (i) the MAPS tokens at \$0.00; (ii) the Oxy tokens at \$0.00; and (iii) the SRM Tokens at \$0.1551467.

21. On December 16, 2023, the Debtors filed (i) the Plan, (ii) the *Disclosure Statement for Debtors’ Joint Chapter 11 Plan of Reorganization of FTX Trading Ltd. and its Affiliated Debtors and Debtors-in-Possession* [D.I. 4862] (the “Disclosure Statement”), and (iii) the *Motion of Debtors for Entry of an Order (I) Approving the Adequacy of the Disclosure Statement; (II) Approving the Solicitation Packages; (III) Approving the Forms of Ballots; (IV) Establishing Voting, Solicitation and Tabulation Procedures; and (V) Establishing Notice and Objection Procedures for the Confirmation of the Plan* [D.I. 4863] (the “Solicitation Procedures Motion”).

22. The Debtors have stated that they intend to file a further amended Plan and Disclosure Statement to reflect their recently announced settlement with the *Joint Official Liquidators of FTX Digital Markets Ltd.* [D.I. 4904] and certain other changes, including the Digital Assets Conversion Table in the Estimation Motion.

23. On January 26, 2024, the Court entered the *Third Order Extending the Exclusive Periods During Which Only the Debtors May File a Chapter 11 Plan and Solicit Acceptances Thereof* [D.I. 6680], extending the Debtors exclusive filing period through and including March 5, 2024, and the exclusive solicitation period through and including June 4, 2024.

24. On March 5, 2024, the Debtors filed the *Fourth Motion of Debtors for Entry of an Order Extending the Exclusive Periods During Which Only the Debtors May File a Chapter 11 Plan and Solicit Acceptances Thereof* [D.I. 8621], seeking to extend the Debtors exclusive filing

period through and including May 13, 2024, and the exclusive solicitation period through and including July 11, 2024.

**B. Estimation Motion**

25. On December 27, 2023, the Debtors filed the Estimation Motion, which proposed a Digital Asset Conversion Table to “provide a basis by which creditors can understand the value of the Claims and the Debtors can calculate the value of Claims in respect of Digital Assets for voting and distribution purposes.” (Estimation Motion ¶ 3.) The proposed Solicitation Procedures Order requires that, for the purposes of the Solicitation and Voting Procedures, to the extent all or part of any claim includes Digital Assets, such Digital Assets should be valued and converted to U.S. dollar amounts using the Digital Assets amounts set forth on the Debtors’ Schedules or in a timely filed proof of claim as converted by the valuations to be set forth in an order by the Court. (*See* Solicitation Procedures Motion, ¶ 56.) A U.S. dollar value for claims based on Digital Assets is also required for determining projected recovery ranges for such claims in the Disclosure Statement. (Disclosure Statement, § 1.B.)

26. On January 11, 2024, Maps Vault filed the *Preliminary Objection of Maps Vault Limited to Motion of Debtors to Estimate Claims Based on Digital Assets* [D.I. 5620] (the “Maps Vault Preliminary Objection”). Prior to the January 24, 2024 hearing on the Estimation Motion, the Debtors and Maps Vault (in addition to certain other parties) agreed to extend the hearing and litigation schedule of the Estimation Motion as it relates to certain claims, including the claims of Maps Vault relating to its MAPS, OXY, and SRM token-related claims.

27. Following a hearing on January 25, 2024, the Court entered the *Order Granting Motion of Debtors to Estimate Claims Based on Digital Assets* [D.I. 7090] (the “Estimation Order”), which granted the Estimation Motion to the extent it applied to more than 400 tokens held

by FTX customers. However, the MAPS, OXY, and SRM Digital Assets were excluded from the Estimation Order with all rights reserved (except the right to assert that estimation should not be conducted with respect to such Digital Assets). (Estimation Order ¶ 9.) The valuation of such Digital Assets will be addressed at an evidentiary hearing currently scheduled for March 20, 2024.

### **ARGUMENT**

#### **I. Under section 502 of Bankruptcy Code, Debtors have the burden of proof in challenging the validity and amount of the Maps Vault and Oxygen Vault Claims.**

##### **A. Applicable Standards of Review**

28. Section 502(c) of the Bankruptcy Code provides that, “[t]here shall be estimated for purpose of allowance under this section . . . any contingent or unliquidated claim, the fixing or liquidation of which, as the case may be, would unduly delay the administration of this case.” 11 U.S.C. § 502(c). The claims estimation process envisioned by section 502(c) “provides a means for a bankruptcy court to achieve reorganization, and/or distributions on claims, without awaiting the results of legal proceedings that could take a very long time to determine.” *In re Adelphia Bus. Sols., Inc.*, 341 B.R. 415, 422 (Bankr. S.D.N.Y. 2003); *see In re Chavez*, 381 B.R. 582, 587 (Bankr. E.D.N.Y. 2008). “[B]y its very nature, estimation under section 502(c) results in allowing a claim for purposes of the entire case, and is no different than a claim allowed under section 502(a) or (b).” *In re Pac. Sunwear of Cal., Inc.*, No. 16-10882 (LSS), 2016 Bankr. LEXIS 2976, \*8-9 (Bankr. D. Del. August 8, 2016).

29. Delaware bankruptcy courts recognize that the “Bankruptcy Code does not establish the manner in which contingent or unliquidated claims are to be estimated,” and that bankruptcy judges should “us[e] whatever method is best suited to the particular contingencies at issue.” *In re Fed.-Mogul Glob., Inc.*, 330 B.R. 133, 155 (D. Del. 2005) (citation omitted); *In re*

*Seaman Furniture Co.*, 160 B.R. 40, 42 (S.D.N.Y. 1993) (recognizing that bankruptcy courts have discretion to utilize any valuation method that best suits the circumstances of the case).

30. However, “the estimating court is bound by the legal rules which may govern the ultimate value of the claim.” *In re Fed.-Mogul Glob., Inc.*, 330 B.R. at 155. In addition, section 105(a) of the Bankruptcy Code affords courts wide latitude in effectuating the provisions of section 502(c) and provides that a court “may issue any order, process, or judgment that is necessary or appropriate to carry out the provisions of this title.” 11 U.S.C. § 105(a). Section 105(a) allows courts to “craft flexible remedies that, while not expressly authorized by the [Bankruptcy] Code, effect the result the [Bankruptcy] Code was designed to obtain.” *In re Combustion Eng’g, Inc.*, 391 F.3d 190, 235-36 (3d Cir. 2004) (citing *Official Comm. of Unsecured Creditors of Cybergenics Corp. ex rel. Cybergenics Corp. v. Chinery*, 330 F.3d 548, 568 (3d Cir. 2003) (*en banc*)).

31. Among “the legal rules that may govern the ultimate value of the claim” is Rule 3001(f) of the Federal Rules of Bankruptcy Procedure, which provides, in relevant part, that “[a] proof of claim executed and filed in accordance with these rules shall constitute *prima facie* evidence of the validity and amount of the claim.” Fed. R. Civ. P. 3001(f). “It follows that if the claimant’s proof of claim satisfies Rule 3001(f) the burden of going forward with evidence contesting the validity or amount of the claim shifts to the objector. To meet this burden, the objector’s evidence if believed, must refute at least one of the allegations that is essential to the claim’s legal sufficiency ... Thus, once the objector has presented evidence, the claimant may then need to offer additional evidence to carry its burden of persuasion.” *In re Henry*, 546 B.R. 633, 634 (Bankr. E.D. Pa. 2016). Accordingly, the party objecting to the claim has the burden of

introducing evidence sufficient to rebut the presumption of validity. *In re Allegheny Int'l, Inc.*, 954 F.2d 167, 173-74 (3d Cir. 1992).

32. The Maps Claims were asserted in proofs of claim with dollarized values, and thus “constitute prima facie evidence of the validity *and amount* of the claim.” Fed. R. Bankr. P. 3001(f) (emphasis added). In an effort to introduce evidence sufficient to rebut the Maps Claims’ presumption of validity, the Debtors filed the *Declaration of Sabrina T. Howell In Support of the Motion of Debtors to Estimate Claims Based on Digital Assets* [D.I. 5203] (the “Howell Report”); the *Declaration of Kevin Lu In Support of the Motion of Debtors to Estimate Claims Based on Digital Assets* [D.I. 5204] (the “Lu Declaration”); and the *Supplemental Declaration of Sabrina T. Howell in Support of the Motion of Debtors to Estimate Claims Based on Digital Assets* [D.I. 6728, Ex. D] (the “Supplemental Howell Report”).

33. In response, on January 26, 2024, Maps Vault served on the Debtors the *Expert Report of Fotios Konstantinidis* (the “Konstantinidis Report”), attached hereto as **Exhibit A**. In response, on February 9, 2024, the Debtors served on Maps Vault the *Rebuttal Expert Report of Sabrina T. Howell* (the “Howell Rebuttal Report”), attached hereto as **Exhibit B**, and the *Response of Kevin Lu to Expert Report of Fotios Konstantinidis* (the “Lu Rebuttal Report”), attached hereto as **Exhibit C**.

34. This Court is tasked with weighing the evidence to be presented by the Debtors and Maps Vault at the hearing on the Estimation Motion to determine whether the Debtors have rebutted allegations essential to the claim’s legal sufficiency. The Debtors’ attempt falls woefully short.

**B. The Court has discretion to set procedures to estimate claims.**

35. Subject to basic due process and evidentiary safeguards, bankruptcy courts have wide discretion to determine the method most appropriate to estimate a claim. *Bittner v. Borne*



*Chem. Co.*, 691 F.2d 134, 135 (3rd Cir. 1982) (estimation can occur under § 502(c) “using whatever method is best suited to the particular contingencies at issue”); *In re Trident Shipworks, Inc.*, 247 B.R. 513, 514–15 (Bankr. M.D. Fla. 2000) (finding “that the Court has discretion to determine the appropriate method of estimation”). The Court’s determination of the methodology used to estimate a claim is reviewed only for abuse of discretion. *Bittner*, 691 F.2d at 136 (holding that the bankruptcy court did not abuse its discretion by estimating claims “according to their ultimate merits rather than the present value of the probability that they would succeed in their state court action”). As such, courts have adopted a variety of methods to estimate a claim.

36. Some courts use a “probabilistic methodology” in which “the amount of the claim [is] diminished by probability that it may be sustainable only in part or not at all.” *In re Windsor Plumbing*, 170 B.R. 503, 521 (Bankr. E.D.N.Y. 1994). Other courts take a “binary[,] all or nothing” approach under which “[t]he party that carries its argument by a preponderance generally receives either a claim value of zero if the debtor prevails, or the full value of the claim if the claimant prevails.” *In re Windsor Plumbing*, 170 B.R. at 521 (citing *Bittner*, 691 F.2d at 136). While “such approach may be appropriate for a finder of fact,” in a full claims allowance proceeding, some courts “do not believe that it is appropriate for a claim estimation proceeding.” *In re Windsor Plumbing*, 170 B.R. at 521. In keeping with this precedent, here the Court has discretion to consider the reports, depositions, and testimony of Mr. Lu, Prof. Howell, and Mr. Konstantinidis to estimate the value of the cryptocurrencies at issue at a level that takes into account their competing conclusions. In making that evaluation, the Court should also consider their qualifications or lack thereof as well as the reliability of their methodologies. *See* Fed. R. Civ. P. 702.

**II. Debtors have not carried their burden of proof under section 502 of the Bankruptcy Code to demonstrate that their valuation of the Digital Assets is appropriate or correct.**

37. The Debtors ask the Court to accept estimated valuations for hundreds of digital assets on the FTX exchange, including MAPS, OXY, and SRM tokens, based on prices proposed by Mr. Lu, and discounts proposed by Prof. Howell. Neither Mr. Lu nor Prof. Howell are qualified to give the opinions they provide. Neither Mr. Lu's nor Prof. Howell's methodologies are reliable or appropriate under these circumstances. The Court should not adopt their flawed opinions.

38. Mr. Lu was tasked with "calculating" the price of each digital asset as of the Petition Date (i.e., at 11:00 a.m. (ET) on November 11, 2022). Such calculations are necessary because digital assets are traded on multiple exchanges, and on multiple "constituent markets" within each exchange. Each constituent market is a pairing of a digital asset with either another digital asset or a fiat currency. For example, within a particular exchange, a digital asset such as MAPS tokens could be traded on multiple markets, such as MAPS-BTC (MAPS tokens with Bitcoin), or MAPS-USD (MAPS tokens with U.S. Dollars). Because digital assets trade at all hours, the value of digital assets is always in flux, and so the value of MAPS tokens converted to U.S. Dollars is different at any point in time depending, first, on the trading price in a particular constituent market and then depending on the trading price of the paired asset in U.S. Dollars. The same is true for OXY and SRM tokens.

39. Accordingly, determining the price of a digital asset at a particular point in time is more complicated than just identifying its trading price in U.S. Dollars (which itself is a constituent market) on a particular exchange. Instead, the relative value of the asset on a host of exchanges and constituent markets must be considered and a mathematical formula applied to determine price. As discussed below, this is what Mr. Lu purported to do, but he did so by systematically excluding a substantial number of exchanges (and all of the relevant constituent

markets on such exchanges) based on his unverifiable belief that such exchanges were susceptible to “wash trading” and other forms of “fake trading” that could artificially affect the prices calculated from such exchanges and constituent markets.

40. Prof. Howell, in turn, took the “prices” provided by Mr. Lu, and applied further “discounts” to such prices to arrive at an ultimate opinion of the value of each digital asset as of the Petition Date. As discussed below, Prof. Howell applied at least two discounts, an “asset liquidation discount”<sup>4</sup> as well as a “discount for lack of marketability” or “DLOM.”

41. Prof. Howell’s “asset liquidation discount” is based on the Kyle and Obizhaeva (2016) model (the “KO Model”). (Howell Report ¶ 68.) The KO Model is predicated on a hypothesis that when transactions are converted to “bets,” calendar time is converted to “business time,” and return volatility is converted to “dollar volatility,” all markets are subject to two “constants” or “invariants”: (1) invariance of bets and (2) invariance of transaction costs. (Konstantinidis Report ¶ 31.)

42. But the KO Model has never been applied to value or calculate an “asset liquidation discount” for cryptocurrency. The only peer-reviewed, published paper applying the KO Model to cryptocurrency exchanges (rather than tokens) determined that the KO Model is unable to measure liquidity in high-volatility situations, as is true with these tokens. No one has confirmed that the KO Model’s hypothesis applies to cryptocurrency. And the real-world data is inconsistent with Prof. Howell’s conclusions.

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<sup>4</sup> Although Prof. Howell asserted that she “think[s] you will find” the term “asset liquidation discount” used in the valuation industry, it does not appear in Kyle and Obizhaeva (2016) or any of the other papers on which she relied. (Howell Dep. at 45-46, 199-202; *see generally* Howell Report Annex B; Howell Rebuttal Report Annex A.) It appears that either Prof. Howell or the Analysis Group created the term out of whole cloth to try to add undue credibility to her opinion.

43. In addition, the KO Model as applied by Prof. Howell produces illogical and insupportable discounts of over 100 percent. When other models produce such impossible discounts, they are rejected – in paper after paper, including those cited by Prof. Howell. But instead of reconsidering her conclusion, Prof. Howell manually adjusted the discounts downward to 100 percent without disclosing this fact in the Howell Report.

44. Further, Prof. Howell’s zero-value conclusion makes no sense because some amount of MAPS and OXY tokens can be sold at a positive value before the price goes to zero. Because the price of MAPS and OXY tokens cannot go net negative, the final valuation must thus be positive. Prof. Howell cannot provide any estimate of when the price ultimately goes to zero, but at minimum she cannot rule out that the Debtors could sell as much as **\$100 million** worth of MAPS and OXY tokens before the price goes to zero.

45. Finally, Prof. Howell’s analysis is improper because it is not a valuation at all. It is instead an improper quasi-opinion predicated on the assumption that a “fire sale” of all of the Debtors’ holdings would be an “orderly liquidation.” But Prof. Howell simply and incorrectly assumed that, because the Plan contemplates that the Debtors will ultimately “monetize” all of their Digital Assets to satisfy customer claims, any calculation of an “asset liquidation discount” must be predicated on a comparable assumed sale of all the Debtors’ and their customers’ digital assets as of the Petition Date. Prof Howell has not actually provided a valuation of MAPS, OXY, or SRM in the hands of Maps Vault or the Debtors as of the Petition Date or considered any other liquidation strategy whatsoever—let alone one that might maximize the value of those assets.

46. Prof. Howell’s discount for lack of marketability is similarly flawed. Prof. Howell applies a discount for lack of marketability even though she assumes that all of the locked tokens were unlocked as of the Petition Date, a further assumption with no tether to reality. That

undermines the entire purpose of the discount for lack of marketability, and results in double-discounting when applied along with her “asset liquidation discount.”

47. Finally, the Howell Rebuttal Report improperly seeks to provide new opinions that neither contradict nor rebut Mr. Konstantinidis’s opinions and are based entirely on innuendo. Prof. Howell asserts a new opinion that MAPS, OXY, and SRM have some (unspecified) lower value because of their association with FTX and Mr. Bankman-Fried. But she readily concedes that she has done no formal analysis of their valuation and that her discounts would not be affected at all if there were no such association. She also opines that OXY and SRM (but not MAPS) have negligible fundamental value. But again, she readily concedes that she has done no formal analysis to support her opinion and that she cannot provide any specific fundamental value.

48. The evidence and testimony to be elicited at trial will establish that the Court should not adopt the methodologies or results presented by the Debtors through Mr. Lu and Prof. Howell, who are unqualified to provide their opinions. Instead, the Court should rely on a proven and established valuation expert, Mr. Konstantinidis, who employed trusted and reliable statistical valuation methodologies to more accurately determine the valuation of MAPS, OXY and SRM tokens as of the Petition Date.

**A. The Debtors’ experts lack appropriate expertise and qualifications.**

**1. *Mr. Lu lacks proper qualifications and has significant potential bias.***

49. Maps Vault believes that the Debtors intend to offer Mr. Lu as an expert witness, despite that they did not ask the Court to consider Mr. Lu as an expert witness at the prior hearing on the Estimation Motion. Unlike Prof. Howell, Mr. Lu did not prepare an expert report in compliance with Rule 26. Indeed, at his deposition Mr. Lu testified that he thought his testimony on price constituted a “calculation,” not an opinion, and he himself did not know if he would testify

as an expert witness. But a cursory review shows that Mr. Lu cannot articulate why the Court should approve of his methodology unless he is providing an expert opinion, which he is not qualified to do.

50. As described below, the last stage of Mr. Lu's methodology may be rooted in math, but everything leading up to it depends on his personal value judgments and subjective decision-making—including at least one segment that expressly references his own “expert judgment.” The Debtors cannot establish that Mr. Lu's methodology was appropriate without expert testimony, which Mr. Lu is not qualified to give. The work performed by Mr. Lu was not based on established scientific or statistical principles. Mr. Lu has no formal training or education in statistics, data science or valuation. (Lu Dep. at 7:2-10:2., attached hereto as **Exhibit D**). He simply is not qualified to make such value judgments for use in a judicial proceeding.

51. Mr. Lu's inability to credibly testify as an expert witness is further exacerbated by the lack of disclosures regarding Coin Metrics' potential conflicts of interest. Those conflicts of interest, which include \$50 million of venture capital investments discussed below, should give the Court pause before accepting Coin Metrics' prices or Mr. Lu's testimony as demonstrably independent. This uncertainty about Mr. Lu's testimony is heightened by the Debtors' failure to provide the Rule 26 disclosures typically required for any expert report.

52. Among other unanswered questions, the Debtors failed to provide meaningful disclosures regarding the \$50 million of venture capital that was invested in Coin Metrics, and how such venture capital investors may be affected by the outcome of these bankruptcy cases. (Lu Declaration at ¶ 13; Lu Dep. at 45:10-46:6, 46:13- 46:20). For example, if such investors had accounts of their own at FTX, their recoveries could be enhanced if the Court adopts Coin Metrics' prices and consequently de-values the MAPS, OXY and SRM tokens, leaving behind a larger share

of future recoveries for customers with other digital assets. The Coin Metrics conflicts policy similarly contains no provisions that would address or require any disclosures by Coin Metrics' investors or provide any assurance that such interests do not impact Mr. Lu's "expert judgments" being employed in this case.

53. It is similarly unclear what financial interests Coin Metrics itself, along with its officers and directors, may have in this matter. While Mr. Lu testified that Coin Metrics has a conflicts of interest policy, he acknowledged that he had personally invested in at least one of the exchanges that is graded by Coin Metrics' Trusted Exchange Framework, which he said was not required to be reported under the conflicts policy. (Lu Dep. at 103:18-104:20.) The policy, however, which was only produced after Mr. Lu's deposition, provides no requirement that Coin Metrics employees disclose their investment or other interests in cryptocurrency exchanges or digital assets, and thus provides no protection against bias. This only further highlights the lack of transparency and potential for serious bias by Coin Metrics and thus Mr. Lu.

**2. *Prof. Howell lacks valuation experience.***

54. Prof. Howell was retained to assist with valuing creditor claims in connection with a proposed liquidation of cryptocurrency assets. But she does not purport to be an expert in asset valuation, cryptocurrency valuation, asset liquidation, cryptocurrency trading, or anything else related to the question at issue: valuing creditor claims as to cryptocurrency assets as of the Petition Date.

55. Nothing in Prof. Howell's background establishes that she is an expert in valuation. Prof. Howell's PhD is in the "Political Economy & Government Program" and her BA is in Economics and East Asian Studies. (Howell Report, Annex A, at A-1.) In the course of obtaining those degrees, Prof. Howell took no courses that addressed asset valuation, other than those that provided an overview of "basic valuation" principles. (Howell Dep. at 10:7-10:15,

attached hereto as **Exhibit E.**) She has taken no classes about valuing cryptocurrency. (*Id.*) Nor does he teach the KO Model or anything about asset liquidation as part of her classes at NYU. (Howell Dep. at 11:25-12:9.) She has no academic or other experience with “asset liquidation discounts.” Her only experience with asset valuation involved valuing oil pipeline assets in 2008 and 2009, which she admits does not have much in common with cryptocurrency. (Howell Dep. at 12:10-12:15.) She has no experience with asset liquidation. (*Id.* at 21:11-21:17.) She has no experience in trading, in cryptocurrency or otherwise. She has written no papers, published or unpublished, that are relevant to her opinions about MAPS, OXY, or SRM. (*Id.*) Finally, none of her research interests involve asset valuation or liquidation. (*Id.* at 21:22-22:13.)

56. At most, Prof. Howell can point to only three potential qualifications. *First*, she has written one paper about initial coin offerings, which she readily admits does not provide a model for valuing cryptocurrency. (Howell Dep. at 16:10-17:16, 41:15-42:4.) She did not rely on that paper for her opinion on the value of and discounts to the value of MAPS, OXY, and SRM tokens. (Howell Dep. at 41:22-42:4.)

57. *Second*, she teaches about determining the fundamental valuation of NFTs (or non-fungible tokens) based on their future cash flows. (Howell Dep. at 11:5-11:15.) Prof. Howell has not provided any proper fundamental valuation of MAPS, OXY, or SRM tokens in this case, and certainly no fundamental valuation based on future cash flows.

58. *Third*, she is currently doing research on the economics of giving away tokens for free. (Howell Dep. at 22:2-22:10.) She cannot point to anything about that – beyond her general familiarity with the “crypto economy” – that is relevant to her opinions in this case.

59. In short, Prof. Howell has no expertise in anything that is actually relevant to this case. Nothing in her background, work experience, teaching experience, or research provides



any reason for this Court to adopt the KO Model – *for the first time ever* – to value the tokens at issue here or calculate an “asset liquidation discount,” or to adopt her improper and unanalyzed statements about the fundamental value of MAPS, OXY, or SRM tokens.

**B. Mr. Lu’s calculated price is unreliable and not statistically sound.**

**1. *No basis exists to rely on Coin Metrics’ Trusted Exchange Framework to exclude exchanges and constituent markets for MAPS, OXY and SRM tokens.***

60. The foundation for the inherently flawed process undertaken by Prof. Howell (as described below) are the “prices” for MAPS, OXY, and SRM tokens that were wrongly “calculated” by Mr. Lu. In short, Mr. Lu improperly eliminated large swathes of pricing data from his analysis, due to unrelated indicia of unreliability that were not associated with the constituent markets on which MAPS, OXY and SRM tokens were traded. As a result, Prof. Howell was given incomplete and inaccurate pricing and volume data, which necessarily and dramatically skewed her results.

61. The Lu Declaration applied unreliable methodologies not rooted in science or established statistical principles to create a biased data set to which Prof. Howell applied her own flawed discounts. At bottom, Mr. Lu arbitrarily selected which exchanges and which constituent markets within such exchanges would be considered so he could then “calculate the price” at the petition time, all based on his own opinions and judgments as to which exchanges and markets should be included. (Lu Dep. at 88:13-89:7.) But Mr. Lu’s limited industry experience does not make him an expert, certainly not in the fields required for the Court to accept his subjective decisions.

62. According to Mr. Lu, he believes that price should be calculated by looking to certain exchanges that Coin Metrics has deemed “trustworthy” because other exchanges present statistical indicia of wash trading, which inflates the reflected volume of trading on such

exchanges. (Lu Dep. at 58:1-59:12). Mr. Lu's belief on this point is founded on a 2019 non-academic, non-peer-reviewed article published by *Bitwise*. (Lu Dep. at 57:7-57:25.) The *Bitwise* article, however, only discussed markets for Bitcoin on certain exchanges, and provides no indication that wash trading or other indicia of untrustworthiness can be found in other markets, let alone markets on which MAPS, OXY, or SRM tokens traded.

63. The first step of the Lu Declaration's process, therefore, is to decide which exchange he will include in his analysis based on his perception of which exchanges are "trustworthy" or "untrustworthy." Mr. Lu relies on Coin Metrics' *Trusted Exchange Framework*, a proprietary commercial framework that Coin Metrics created and which itself is not based on any established, accepted or tested scientific or statistical principles. (Lu Dep. at 89:25-92:25, 104:22-106:23.)

64. Preliminarily, the Lu Declaration states that he applied version 2.1 of the Trusted Exchange Framework for this assignment, which was updated in October 2023 based on data through the end of the third quarter in 2023. (Lu Declaration, Appendix B at 3.) This, in and of itself, was plainly erroneous because Lu excluded exchanges from his analysis based on Coin Metric's assessment of each exchange's trustworthiness as of September 30, 2023. If exclusion were appropriate at all, exchanges should have been judged based on their observable quality as of the Petition Date – November 11, 2022.

65. If it had been properly followed, the Trusted Exchange Framework would have taken a limited sample from the exchanges to be analyzed, and then assigned each exchange a "grade" in one of five categories (Data Quality, Transparency, Resilience & Security, Regulatory Compliance, and API Quality). (Lu Declaration, Appendix B at 4.) Those categories were then to be somehow aggregated, with certain categories weighted heavier than others (though the

precise grading criteria have not been disclosed), ultimately resulting in each exchange receiving an overall grade from A to D. (Lu Declaration, Appendix B at 5.)

66. As a threshold matter, the Trusted Exchange Framework was *not* followed here. For reasons that Mr. Lu could not satisfactorily explain, he ignored the overall grade, but instead, for the instant assignment, looked only to the first category, data quality, to decide if an exchange was trustworthy or not. If the framework were reliable, why deviate from it? Mr. Lu's decision not to follow Coin Metrics' own framework casts serious doubt on the integrity of any of the data provided by Mr. Lu to Prof. Howell and renders the entire analysis unreliable.

67. Putting this unexplained deviation aside, the Debtors cannot establish why it was reasonable to use this framework in the first place, which resulted in the wholesale exclusion of significant exchanges, such as LBank and MEXC, on which MAPS, OXY, and SRM tokens were traded. (Lu Dep. at 110:5-112: 11.) According to Mr. Lu, the grading process within the framework is based only on a small sampling of certain markets within an exchange, and Mr. Lu admitted that none of the samples included *any* constituent markets for MAPS, OXY, or SRM tokens. Coin Metrics only sampled certain other market within the exchanges, such as the Bitcoin/USD market, found limited statistical indicia from which one could *infer* the presence of wash trading, and then decided to exclude the entire exchange, and every other market on that exchange, none of which had even been tested. (Lu Dep. at 104:21-109:17.) To be clear, Mr. Lu then used that inference, derived from one small sample, to exclude every market within the entire exchange – including MAPS, OXY, and SRM markets that were never tested and which may have had no such statistical indicators. (Lu Dep. at 110:5-111:9).

68. Critically, Mr. Lu had no evidence there was any wash trading on any of those actually relevant markets, but he excluded them anyway because they are on exchanges where the

sampld market had some indications of wash trading. (Lu Dep. at 77:13-79:10.) This wholesale “throw out the baby with the bath water” approach was unreasonable and resulted in the exclusion of a large percentage of actual trading data for MAPS, OXY and SRM tokens, which materially affected the prices that were given to and relied upon by Prof. Howell.

**2. *The Debtors have no evidence of wash trading of MAPS, OXY, or SRM tokens.***

69. As noted above, Mr. Lu’s entire rationale for excluding certain exchanges (and all constituent markets on such exchanges) from his price opinion is based on the 2019 *Bitwise* article which found statistical indicia of wash trading on certain *Bitcoin* markets *five years ago*.

70. But Mr. Lu readily admitted that he had no direct or actual knowledge of such wash trading—he’s simply accepting the conclusion reached by *Bitwise* (which needless to say is not an expert here) that found such statistical markers.<sup>5</sup> He claims that Coin Metrics has run its own statistical analysis on the limited “samples” from the exchanges and found similar statistical indicia, although the underlying data from the exchanges, and how, if at all, Mr. Lu or Coin Metrics manipulated that data as part of this “analysis,” was not disclosed in discovery. And again, because Mr. Lu did not provide a fully Rule 26-compliant expert report, it is unknown exactly what data and documents Mr. Lu actually relied on, let alone what data was sampled by Coin Metrics’ Trusted Exchange Framework to support the “grades” assigned to an exchange.

71. The bottom line is that Mr. Lu has no direct knowledge, nor can he or the Debtors present any evidence of, wash trading on any market for MAPS, OXY or SRM tokens. None of the “papers” or “articles” cited by Mr. Lu, which were not peer-reviewed or published in established academic journals, mention those tokens or provide any basis to conclude that the

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<sup>5</sup> Prof. Howell likewise had seen no evidence of any wash trading in MAPS, OXY, or SRM. (Howell Dep. at 44:10-18.)

markets for such tokens were affected in any way by such practices. In the absence of any such evidence, it was inappropriate for Mr. Lu to entirely ignore large swathes of trading data for MAPS, OXY, and SRM tokens, which should have been included in an appropriate statistical price calculation. Because of such improper exclusion, the foundational facts underpinning Prof. Howell's analysis are inherently flawed and should not be considered.

**3. Mr. Lu's misleading "Confidence Interval."**

72. Mr. Lu's testimony also lacks credibility and is grossly misleading with respect to the "confidence interval" that he claims to have calculated and which he suggests demonstrates the reliability of the prices that were calculated.

73. In statistics, the purpose a confidence interval is to demonstrate the level of uncertainty when extrapolating conclusions based on a representative sample of a larger population. A recognizable example of this is a survey (*e.g.*, of a number of registered voters), the results of which are often reported with some kind of a calculated margin of error. That is a form of confidence interval, with the smaller the percentage margin of error reflecting a higher degree of certainty that the surveyed sample is actually representative of the population at large.

74. The use of a confidence interval is important here, where Mr. Lu has deliberately excluded exchanges where a substantial portion of MAPS, OXY and SRM trades took place, and thus must extrapolate a global price for such tokens based solely on a very limited sample size derived from what he views as "trustworthy" exchanges and the related constituent markets.

75. But Mr. Lu's "confidence interval," does not reflect the actual level of uncertainty as to whether the price calculated is, in fact, a fair representation of the larger population of untested exchanges (*i.e.*, exchanges like MEXC and FTX where substantial trading in MAPS, OXY, and SRM tokens was taking place). Instead, it only reflects the level of

uncertainty that the price calculated is reflective of the 95th percentile of trades taking place on just the “trustworthy” exchanges. (Lu Declaration ¶ 51; Lu Dep. at 62:14-63:19; 67:10-68:6.) Not only is uncertainty compared to a 95th percentile not a statistically appropriate way to determine a confidence interval, it is also statistically inappropriate because it ignores entirely the volume of trading on the excluded exchanges.

76. The key inputs in calculating an actual confidence interval are the size of the population at large and the relative size of the sample. For example, a survey of 100 people would be more uncertain to be reflective of a population of 300 million than the same survey of 50,000 people. Because Mr. Lu excluded exchanges where substantial numbers of MAPS, OXY, and SRM tokens were traded, his confidence interval does not fully account for the size of the universe and thus cannot calculate the uncertainty that the sample tested is reflective.

77. Because Mr. Lu failed to follow established statistical principles in calculating the confidence interval, the presentation of its impact in his Declaration is inherently misleading and might suggest to the Court that the prices calculated are demonstrably certain to be accurate for the larger population of MAPS, OXY and SRM tokens on other exchanges. The reality is far from this, as Mr. Lu has no idea what took place on those other exchanges, and so he is incapable of calculating the level of uncertainty that the current prices are reflective of the larger population.

**B. The Howell Report’s discounts are insupportable.**

***1. The KO Model does not apply to cryptocurrency valuation.***

78. The Howell Report relies on the KO Model to calculate the “asset liquidation discount.” (Howell Report ¶ 68.) The KO Model does not apply to cryptocurrency valuation or discounts for many reasons.

79. *First*, the KO Model has never been applied to value cryptocurrency or calculate an “asset liquidation discount” for cryptocurrency in any legal proceeding or published paper.

(Howell Dep. at 202:24 -204:10.) Indeed, its purpose is not to “value an asset” and it cannot “determine the value of a cryptocurrency token.” (*Id.* at 207:23-208:07.) Prof. Howell has never cited or used the KO Model before and does not use it in her current research. (*Id.* at 22:11-23:1.) Brauneis (2021),<sup>6</sup> the only paper that has ever addressed the KO Model in the context of cryptocurrency, addresses only which model “describes actual liquidity on a cryptocurrency exchange,” not across the entire market. Alexander Brauneis, *et al.*, *How to measure the liquidity of cryptocurrency markets?*, 124 *Journal of Banking & Finance* 1, 1-2 (2021). More importantly, Brauneis found that the KO Model “performs rather well in the low volume periods but *is unable to track liquidity across high volatility periods.*” (*Id.* at 11 (emphasis added).) The market for MAPS, OXY, and SRM is “highly volatile.” (Howell Dep. at 66:7-66:12.) The only peer-reviewed published attempt to apply the KO Model to anything relating to cryptocurrency thus casts doubt on using the KO Model here. When Prof. Howell tried to test the KO Model, the data at higher volatilities was noisier than at lower volatilities. (*Id.* at 76:21-77:19.) Kyle and Obizhaeva assert that their model applies “universally,” but even as late as 2023 they were unwilling or unable to state that it applies to cryptocurrency. Albert S. Kyle & Anna A. Obizhaeva, *Large Bets and Stock Market Crashes*, 27 *Review of Finance* 2163 (2023). No other published work has stated that the KO Model applies universally. (Howell Dep. at 69:13-70:4.) Brauneis also states that “there is not (yet) a universally best measure” even for estimating liquidity on any particular exchange, let alone the entire cryptocurrency market. (Brauneis at 3.)

80. *Second*, no one has ever tested the KO Model using cryptocurrency data. The KO Model depends on the hypothesis that the invariance of bets and the invariance of transaction

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<sup>6</sup> Prof. Howell described the journal in which Brauneis (2021) was published as “not so high quality,” which casts further doubt on Prof. Howell’s nearly exclusive reliance on it to apply the KO Model to cryptocurrency. (Howell. Dep. at 53.)

costs are constants. (Konstantinidis Report ¶ 31.) Those constants were developed based on portfolio transition orders (*i.e.*, “specific instructions given by an investor to a vendor to adjust the investors investments in various stocks and funds”) during 2001 to 2005. (Konstantinidis Report at 31 & n.41.) The Howell Report fails to confirm that the main KO Model hypothesis is true by calculating these two invariants based on cryptocurrency data.” (*Id.* ¶ 31.) The Howell Rebuttal Report similarly fails to calculate the invariants based on cryptocurrency data, and instead simply assumes that it is true. (Howell Rebuttal Report ¶ 39.) Prof. Howell attempted to calculate the coefficients but “[could] not” include them in her reports because the data were “noisy,” particularly “due to the higher volatility of these assets.” (Howell Dep. at 76:21-77:19.) Prof. Howell also does not “think validating the model on cryptocurrency was important to include in the [Howell Report].” (Howell Dep. at 77:12-77:19.)

81. *Finally*, the “slow trading strategy” of the KO Model is inapplicable to real-world trades. Specifically, the Konstantinidis Report points to “more than a few recent examples in the cryptocurrency trading markets where large sales took place, where the asset price was positively or negatively affected, but where the relevant price did not drop to zero.” (Konstantinidis Report ¶ 33.) It provides similar examples in traditional securities markets. (*Id.* ¶ 34.) Prof. Howell has no response at all to these real-world examples.

**2. *The KO Model produces illogical and insupportable discounts of well over 100 percent.***

82. Even if the KO Model could be applied to cryptocurrency, it would still be unsound because it produces illogical and insupportable discounts over 100 percent. “Asset discount is always a normalized number, *i.e.*, a number between 0% - 100%.” (Konstantinidis Report ¶ 35, 37.) Prof. Howell confirmed that “it doesn’t make sense” to have a discount over 100% because it would mean that “customers would have to pay the estate,” although customer



claims cannot “have negative value,” and the price of the tokens will not “ever go below zero.” (Howell Dep. at 48:22-51:6.) That makes sense because tokens do not have “associated liabilities” and cannot have “negative value.” (*Id.* at 41:1-41:4.)

83. Numerous peer-reviewed publications, including those relied on by Prof. Howell, reject models that result in discounts over 100% precisely because such discounts are illogical and impossible. “Models providing results that equal or exceed 100% may have a theoretical problem because it seems logical that a discount would not reduce a value to zero or less.” John J. Stockdale, *A Test of DLOM Computational Models*, Business Valuation Review 27, 131-3727 (2008), attached hereto as **Exhibit G(i)**; *see also* Aaron M. Rotkowsky *et al.*, *Current Controversies Regarding Option Pricing Models*, Taxation Planning & Compliance Insights, Autumn 2013 at 27 (describing discounts over 100% as “an illogical conclusion”), attached hereto as **Exhibit G(ii)**. Models that result in discounts greater than 100% are not accepted in the valuation community because that is an “impossible solution.” Ashok Abbott, *Discount for Lack of Liquidity: Understanding and Interpreting Option Models*, Business Valuation Review, October 2009, attached hereto as **Exhibit G(iii)**.

84. Indeed, Abbott also criticizes practitioners who, like Prof. Howell, mistake a put option premium for a discount for lack of liquidity: “Often, however, the value of a put option premium, estimating the cost of liquidity, is presented incorrectly as the discount for lack of liquidity.” *Id.* The Ghaidarov model used by Prof. Howell in her DLOM analysis expressly rejects an earlier version of the Finnerty model (that both Prof. Howell and Mr. Konstantinidis apply) because it results in discounts “exceeding the reasonable boundary of 100 percent.” Stillian Ghaidarov, *Analysis and Critique of the Average Strike Put Option Marketability Discount Model*, Grant Thornton LLP Valuation Services Group, September 2009 (working paper), *available at*

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1478266](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1478266) (last accessed March 8, 2023). The Longstaff (1995) model has similarly been criticized because it produces discounts over 100%, which “is an impossibility and indicates both a theoretical and practical problem.” John Stockdale, Sr., *BVR’s Guide to Discounts for Lack of Marketability* 198 (5<sup>th</sup> Ed.), available at [https://www.bvresources.com/docs/default-source/book-excerpts/discounts-for-lack-of-marketability-guide-excerpt.pdf?sfvrsn=ddd4f2b2\\_6](https://www.bvresources.com/docs/default-source/book-excerpts/discounts-for-lack-of-marketability-guide-excerpt.pdf?sfvrsn=ddd4f2b2_6) (last accessed March 8, 2024).<sup>7</sup>

85. The KO Model, as applied by Prof. Howell, produces the same illogical and impossible discounts of over 100 percent as the other rejected models. (Howell Dep. at 28:1-29:22.) Recognizing the illogic and inappropriateness of this result, Prof. Howell adjusted the discount manually down to 100 percent to make it appear more logical (her code “arbitrarily forces the calculated values to be . . . 100% for all values larger than 100%”). (Konstantinidis Report ¶ 35 & n.50; Howell Dep. at 28:1-29:22, 48:9-48:25, 86:16-86:25.) Prof. Howell did not disclose this fact in the Howell Report and elided over it in the Howell Rebuttal Report without explaining why she chose to do so. (See generally Howell Report; Howell Rebuttal Report ¶ 41 & n.91.)

***3. Some amount of MAPS and OXY tokens can be sold (up to \$100 million) before the price goes to zero and the price cannot be negative, yet Prof. Howell still applies a 100 percent discount.***

86. The Howell Report and Howell Rebuttal Report apply a 100 percent “asset liquidation discount” to both MAPS and OXY, resulting in a zero valuation for the Maps Claims for those tokens. Prof. Howell’s zero-valuation conclusion is not sustainable because, in all events, MAPS and OXY tokens have some positive value and Prof. Howell, when asked, was unable to

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<sup>7</sup> The Longstaff (1995) model, like the KO Model, calculates bid-ask spreads and transaction costs rather than discounts. See Abbott (2009), *supra*.

estimate whether the Debtors could liquidate \$1 million, \$25 million, or even \$100 million before the price of the tokens would go to zero.

87. Some amount of MAPS and OXY tokens can be sold before the price goes to zero. The price does not “go to zero immediately.” (Howell Dep. at 31:4-31:7.) In a liquidation of MAPS and OXY tokens, at some indeterminate point in the future, “demand will become exhausted” and the prices of MAPS and OXY will “quickly go to zero.” (Howell Rebuttal Report ¶¶ 9, 13, 15, 42; Howell Suppl. Decl. ¶ 12; Howell Dep. at 58:25-59:24, 218:10-218:15.) But MAPS and OXY start at “a positive market price” and the price does not go to zero until “some point after the tokens start to be sold.” (Howell Dep. at 58:10-61:3.)

88. Significantly, Prof. Howell cannot rule out that the Debtors could sell as much as **\$100 million** worth of MAPS and OXY before the price went to zero. (Howell Dep. at 58-61.) Howell cannot calculate when the price would go to zero because it depends “on market activity, beliefs, and expectations.” (*Id.* at 59:25-61:3.) She did not do the analysis to determine when the prices went to zero. (*Id.* at 61:4-61:17)

89. Despite having not done that analysis, and despite being unable to rule out whether that point was more or less than \$100 million, Prof. Howell concluded that the total amount would round to zero. (Howell Dep. at 61:4-61:17.) But because the tokens cannot have “negative value” and the price will not “ever go below zero,” the total value cannot go to zero once there is any positive value from the liquidation. (*Id.*) Prof. Howell’s zero-valuation conclusion thus is insupportable.

***4. The Howell Report improperly assumes that all Debtor holdings will be liquidated rather than valuing customer claims.***

90. The Howell Report ultimately fails to provide a proper valuation of the Claims at issue because she makes unreasonable assumptions about the way that MAPS, OXY, and SRM

tokens will be liquidated. Although Prof. Howell purports to provide an opinion regarding the value of the claims (Howell Report ¶ 4), her opinion is not a proper valuation—unlike Mr. Konstantinidis, who provided an opinion as to the value of the claims as of the Petition Date and Time. (Konstantinidis Dep. at 15-16, attached hereto as **Exhibit F.**) Rather than a valuation, Prof. Howell opines on the effect of an “orderly liquidation” without ever considering what would constitute an orderly liquidation. (Howell Report at 14.)

91. Rather than an orderly liquidation, Prof. Howell assumed that the Debtors would liquidate all of their digital assets, including all of their customers’ holdings as well, commencing immediately as of the Petition Date. (Howell Dep. at 161: 22 - 162:1.) She did so because she was directed by the Debtors to assume that the Debtors had to sell all of their holdings of digital assets, rather than any other strategy. (Howell Dep. at 164:11-165:12.) Her understanding was that the Court had instructed the Debtors to sell all of their holdings, rather than to hold, destroy any, or burn any of them. (Howell Dep. at 165:4-166:23.) Prof. Howell does not purport to opine on whether this assumption was proper or what a proper liquidation would be—nor could she.

92. Although Prof. Howell believes that the Debtors have a fiduciary duty to the estate to conduct an “orderly liquidation,” she expressly did not analyze or consider whether the Debtor could take any steps to maximize the value of their assets or their ability to satisfy creditor claims. (Howell Dep. at 166:10-166:23, 221:5--222:3.) She did not consider, for example, whether the Debtors could retain their holdings and liquidate only the creditors’ holdings. (Howell Dep. at 163.) She also did not consider whether the Debtors could do anything else with their MAPS or OXY tokens to maximize their value, such as burning some of the tokens. (Howell Dep. at 163:11-64:18, 222:23-24:13.)<sup>8</sup> Contrary to the assumption provided by the Debtors, the Debtors

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<sup>8</sup> Burning, or destroying, the tokens can decrease the available supply and increase the tokens’ value. (Howell. Dep. at 163-66.)

plan to—indeed, are required to – take steps to maximize the value to the Estate, including selling the assets slowly over a period of time.

***5. The Howell Report improper application of both her “asset liquidation discount” and discount for lack of marketability results in double discounting.***

93. The Howell Report incorrectly applies two incremental discounts: her “asset liquidation discount” and a discount for lack of marketability. But the discounts cannot be applied together because both assume that the tokens were sold as part of the calculation of the discount. (Konstantinidis Report ¶ 38.)

94. The Howell Rebuttal Report asserts that the discounts can be applied together for two related reasons. *First*, locked tokens are worth less than unlocked tokens. (Howell Rebuttal Report ¶ 44.) That is not in dispute, but it does not provide any basis for applying the “asset liquidation discount” in addition to the DLOM. The Howell Rebuttal Report does not provide any such basis.

95. *Second*, Prof. Howell asserts that the two discounts can be applied together because the tokens must be unlocked to be liquidated. But Prof. Howell assumed that all of the tokens are unlocked as of the Petition Date. (Howell Dep. at 87:9-87:21, 145:10- 145:21, 215:11-217:21.) If the tokens are unlocked as of the Petition Date, then no discount for lack of marketability can apply: there is no “opportunity cost of holding a non-marketable asset” if the tokens are unlocked. (Howell Report ¶ 73.) Even if this were just an assumption, it makes no sense. The tokens can only be “unlocked according to the specific vesting schedule associated with that customer account or that locked token.” (Howell Dep. at 88:9-88:22.)<sup>9</sup>

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<sup>9</sup> If the tokens would not be unlocked as of the Petition Date, Prof. Howell improperly applied the “asset liquidation discount” by including the locked tokens in her calculation of the available holdings. By her own logic, if the tokens remain restricted, they could not increase the free float and would increase, not discount, the price. (Howell Rebuttal Report ¶¶ 9-10.)

**6. *The Howell Rebuttal Report's new opinions are untimely, irrelevant, and improper.***

96. The Howell Rebuttal Report makes much of the alleged association between FTX and Mr. Bankman-Fried, on the one hand, and MAPS, OXY, and SRM, on the other. (Howell Rebuttal Report ¶¶ 9-21.) Yet the alleged connection to FTX and Mr. Bankman-Fried is not part of Prof. Howell's "formal analysis," the "asset liquidation discount," or the discount for lack of marketability. (Howell Dep. at 92:21-92:25, 169:1-169:16.) Prof. Howell has no basis for discounting assets based on their alleged connection to a convicted criminal. (*Id.* at 94:4-94:22.) Indeed, taking FTX and Mr. Bankman-Fried out of the case would not affect her "asset liquidation discount" at all. (*Id.* at 95:21-95:25.) MAPS, OXY, and SRM tokens are trading today at positive prices and volumes. (*Id.* at 96:1-97:12.) It is apparent that these statements were not included as part of any relevant, well-founded opinion, but solely to impugn MAPS, OXY, and SRM without any legitimate basis for doing so.

97. The Howell Rebuttal Report also opines that OXY and SRM tokens have negligible fundamental value. (Howell Rebuttal Report ¶¶ 14, 21.) Yet Prof. Howell has not done a "formal analysis" of the fundamental value of either token and cannot provide the specific fundamental value of either token (although she believes they are not fundamentally valueless). (Howell Dep. at 13:5-13:14, 92:3-92:11, 169:17-170:6, 204:11-205:2.) Further, at the very least, MAPS tokens have fundamental value because the underlying platform is still operating. (*Id.* at 92:12-92:20.) Prof. Howell also conceded that this opinion was based on post-petition events (i.e. events that could not possibly implicate value as of the Petition Date). (*Id.* at 102:19-103:21.) In other words, this "opinion" too is not based on any formal analysis but instead appears to have been included solely to impugn MAPS, OXY, and SRM.

98. These opinions are also improper for a separate reason: they were not included in the Howell Report. They are not provided in response to anything in the Konstantinidis Report, which does not address the fundamental value of any of the tokens or their connection to FTX or Mr. Bankman-Fried. (Fed. R. Civ. P.26 (a)(2)(D)(iii); *Nat'l Med. Imaging v. U.S. Bank N.A.*, 2019 U.S. Dist. LEXIS 232918, \*5-6 (E.D.Pa. Jan. 31, 2019) (noting that although courts have broad discretion in determining admissibility of rebuttal evidence, such evidence must be offered to “directly contradict or rebut the opposing party’s expert” (internal citations omitted)) This Court should ignore these untimely and improper sandbagging “opinions.”

**C. The Konstantinidis Report provides a more supportable and credible valuation of MAPS, OXY, and SRM tokens.**

99. In contrast to the Howell Report and Lu Declaration, the Konstantinidis Report presents a valuation of the MAPS, OXY, and SRM tokens that is well-supported by all applicable asset principles, is based on inputs that accord with market realities, and yields results that are logical and consistent. After reviewing the methodology used by the Debtors’ proposed experts, Mr. Konstantinidis, an established expert with experience in the valuation of digital assets, determined that there was a better methodology that should be used to value the MAPS, OXY, and SRM tokens. Unlike Prof. Howell, who was asked to assume that the Debtors must liquidate all of their digital assets (including MAPS, OXY, and SRM) at one time, Mr. Konstantinidis provides a valuation of each individual token as of the Petition Date.

100. Mr. Konstantinidis has experience with asset valuation, including of cryptocurrency. He is the practice lead for Stout for data analytics and business intelligence, which includes a focus on asset valuation. (Konstantinidis Dep. at 23:5-23:25.) Mr. Konstantinidis has valued both cryptocurrencies and NFTs as part of his work at Stout. (*Id.*) In just the past two

years, he has worked on no less than eight cryptocurrency valuation projects. (*Id.* at 23:20-25:8.) In doing so, he used the exact same “blockage” model that he applied in this case. (*Id.* at 26-27.)

101. Instead of relying on the KO Model, with all of the attendant problems noted above, Mr. Konstantinidis employed the “blockage” method to facilitate the sale of the tokens over time, an approach that would yield a more accurate valuation of the three tokens. (Konstantinidis Report ¶ 40.) Blockage discounts (also sometimes referred to as a “dribble-out” method) are a well-recognized valuation method and have been used for decades in the U.S. Tax Court. *See, e.g.,* Blockage Discount, Corporate Finance Institute, available at <https://corporatefinanceinstitute.com/resources/equities/blockage-discount/> (last accessed March 8, 2024); Charles A. Wilhoite & Aaron M. Rotkowski, *Fair Market Value and Blockage Discounts: When the Market Doesn’t Give You the Answer*, Valuation Analysis Insights (2014) at 76-77 attached hereto as **Exhibit G(iv)**; *Estate of Gimbel v. Commissioner*, No. 21250-04, T.C. Memo. 2006-270 (Dec. 19, 2006), attached hereto as **Exhibit G(v)**.

102. Owing to the volume of tokens that Maps Vault owns, this “blockage” method provides for a gradual liquidation of the tokens. Using an assumed daily trading volume of 10%, a party can liquidate the token gradually without causing a significant change in price. (Konstantinidis Report ¶ 41–42.) Mr. Konstantinidis explained at his deposition that selling up to 10 percent of daily trading volume is “a well-established percentage that’s used in – for tax purposes for large estates, not only by Stout, but by other reputable valuation firms.” (Konstantinidis Dep. at 64:4 – 64:8.)

103. To determine the appropriate volume for the MAPS, OXY, and SRM tokens, Mr. Konstantinidis analyzed the volume trends of twenty cryptocurrencies that “are available in the Ethereum blockchain, were active for the last 5 years, were not stablecoins, and have average



daily volume in USD between \$1 million - \$30 million were used.” (Konstantinidis Report ¶ 46.) These volume trends were then applied to the MAPS, OXY, and SRM tokens along with their unlocking schedules in order to avoid an “unrealistic assumption that [the] volume will be constant.” (*Id.*) Mr. Konstantinidis then took this data on price and volume to analyze whether any discount must be applied to the MAPS, OXY, and SRM tokens.

104. To accurately value each token, the price of an individual token as of the Petition Date and Time must be established. Mr. Konstantinidis collected input data from CoinMarketCap API to analyze the prices and daily trading volume for the MAPS, OXY and SRM tokens. CoinMarketCap is “an established data aggregator for cryptocurrency.” (Konstantinidis Dep. at 100:24-100:25.) Prof. Howell has relied on it in the past for her published work. (Howell Dep at 42:5-42:14.) CoinMarketCap provides a more accurate valuation than Coin Metrics because CoinMarketCap includes a broader choice of cryptocurrency exchanges. (*See* Konstantinidis Dep. at 102:2- 102:5, 104:24-105:23.)

105. By using Coin Metrics rather than CoinMarketCap, Prof. Howell and Mr. Lu improperly excluded the LBank exchange and several others. (Howell Dep. at 178:13-178:21.) Prof. Howell and Mr. Lu’s reasons for excluding these exchanges are arbitrary and unsupportable. For example, Prof. Howell had no problem using Bibox, a similar exchange that was ranked only one spot ahead of LBank on Coin Metrics rankings. (Konstantinidis Dep. at 100:8-101:13.) Further, there was no difference between LBank’s and Bibox’s rankings for data quality (the only metric of the five on which Mr. Lu apparently relied, as noted above). (Lu Declaration, Appendix B at 4.)

106. Rather than arbitrarily using the hour prior to the Petition Date and Time, at which Prof. Howell and Mr. Lu believe that news of the bankruptcy filing may have already been

leaked to the market, Mr. Konstantinidis used the 24-hour average for the 24 hours prior to the Petition Date and Time. (Konstantinidis Report ¶ 45.) To account for the volatility of prices for MAPS, OXY, and SRM, Mr. Konstantinidis applied an annualized 9-month average to reflect recent price movements. (Konstantinidis Report ¶ 45.)

107. Applying the assumed daily trading volume along with the theoretical cost to the owner, Mr. Konstantinidis then used an average between two well-established valuation methods: the Chaffe Model and the Finnerty Model. (Konstantinidis Report ¶ 43–44.) In order to determine the relevant discount under the Chaffe Model, the following inputs are used: “(1) asset price, (2) strike price, (3) time to expiration or maturity (i.e., the effective duration noted above), (4) interest rates, and (5) volatility.” (Konstantinidis Report ¶ 44.) The Finnerty Model uses the following inputs to estimate a “discount based on the value of an average-strike price put option”: “(1) asset price, (2) time to expiration or maturity i.e., the effective duration noted above), (3) volatility, and (4) dividend or distribution yield.” (Konstantinidis Report ¶ 44.) By averaging the two models, Mr. Konstantinidis’ model provides a more accurate valuation of the MAPS, OXY, and SRM tokens.

108. The analysis provided by Mr. Konstantinidis concludes that the appropriate discount as of the Petition Date values of MAPS, OXY, and SRM tokens for Maps Vault should be: (i) MAPS: 45.41706%; and (ii) SRM: 45.99099%. (Konstantinidis Report ¶ 49.) The appropriate discount for Oxygen Vault Limited should be: (i) OXY: 36.86372% and (ii) SRM: 45.94059%. (*Id.*) Mr. Konstantinidis “valued the tokens as of the petition date and time, as an individual portfolio, which is the standard methodology especially for IRS purposes, without taking account of anything else that I do not control.” (Konstantinidis Dep. at 61:3-61:8.) Mr.

Konstantinidis' valuation of the MAPS, OXY and SRM tokens is the more appropriate and accurate valuation as of the Petition Date and Time.

**CONCLUSION**

**WHEREFORE**, for the reasons set forth herein, Maps Vault respectfully requests that the Court (a) deny the Estimation Motion with respect to the Digital Assets Conversion Table for the Maps Claims; (b) enter an Order estimating the (i) Maps Vault claims at \$229,309,262 on account of MAPS tokens, and \$653,435 on account of SRM tokens, and (ii) the Oxygen Vault Limited claims at \$60,212,010 on account of OXY tokens and \$1,608,463 on account of SRM tokens, in accordance with the Konstantinidis Report; and (c) grant such other and further relief as is just and proper.

Dated: March 8, 2024  
Wilmington, Delaware

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